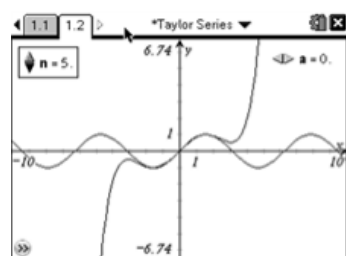


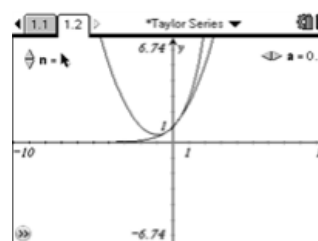
9.2a Taylor Series

How can we find a polynomial that looks like another function?



Jan 28-10:59 AM

Ex. Find a parabola that fits $y=e^x$ for x near 0



Jan 28-11:04 AM

Find an nth degree polynomial that fits $y=e^x$ for x near 0

Jan 28-11:02 AM

Construct a 4th degree polynomial that matches $y=\ln(1+x)$ at $x=0$

Jan 28-11:35 AM

Maclaurin Series for $f(x)$

Jan 28-11:03 AM

Find the Maclaurin series for $f(x)=\sin(x)$. How many terms are required to approximate $\sin(7)$ accurate to the third decimal place?

The screenshot shows a calculator window with the following content:

$\sum_{n=0}^{10} \left((-1)^n \cdot \frac{7^{2n+1}}{(2n+1)!} \right)$	0.657964
$\sin(7)$	0.656987
	2/99

Jan 28-11:37 AM